



RMS1731C-636111

RMS1000

RADAR SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
RMS1731C-636111	1107598

Other models and accessories → www.sick.com/RMS1000



Detailed technical data

Features

Variant	Model RMS-A
Measurement principle	FMCW
Radio approval	For country-specific restrictions see "Regulatory Compliance Information" (no. 8026123) technical information (downloads), also included with the product
Frequency band	61 GHz ... 61.5 GHz
Transmitting power	< 20 dBm (e.i.r.p.)
Aperture angle	Horizontal ± 60° Vertical ± 4°
Working range	0.4 m ... 100 m
Scanning range	For 1 m ² RCS 50 m At 10 m ² RCS 100 m
Distance accuracy	1 m ² to 20 m 0.04 m 1 m ² to 50 m 0.1 m
Distance resolution	0.4 m ¹⁾
Speed range	± 30 m/s
Speed resolution	0.625 m/s ¹⁾
Speed accuracy	1 m ² to 20 m 0.0625 m/s 1 m ² to 50 m 0.15 m/s

¹⁾ Resolution in terms of radar means that two signals with exactly the same amplitude can be separated if they differ in distance or speed by more than the listed values.

Mechanics/electronics

Connection type	1 x M12 male connector, 8-pin, A-coded 1 x male connector M12, 5-pin, A-coded 1 x M12 female connector, 4-pin, D-coded
Supply voltage	9 V DC ... 32 V DC

Power consumption	Typ. 4 W, For digital outputs without load, max. 36 W
Housing color	Gray (RAL 7042)
Enclosure rating	IP67 IP69
Protection class	III
Weight	300 g
Dimensions (L x W x H)	34 mm x 97 mm x 96 mm

Performance

Initialization time	Typ. 20 s
Processing latency	1 measurement cycle
Measurement cycle duration	100 ms
Integrated application	Zone evaluation
Number of field sets	Up to 4 zones

Interfaces

Ethernet	✓
Function	Parameterization, Data output
Data transmission rate	10/100 MBit/s
CAN	✓, SAE J1939
Remark	In preparation phase, currently not available on device
Digital inputs	2 (digital)
Digital outputs	4 (digital)

Ambient data

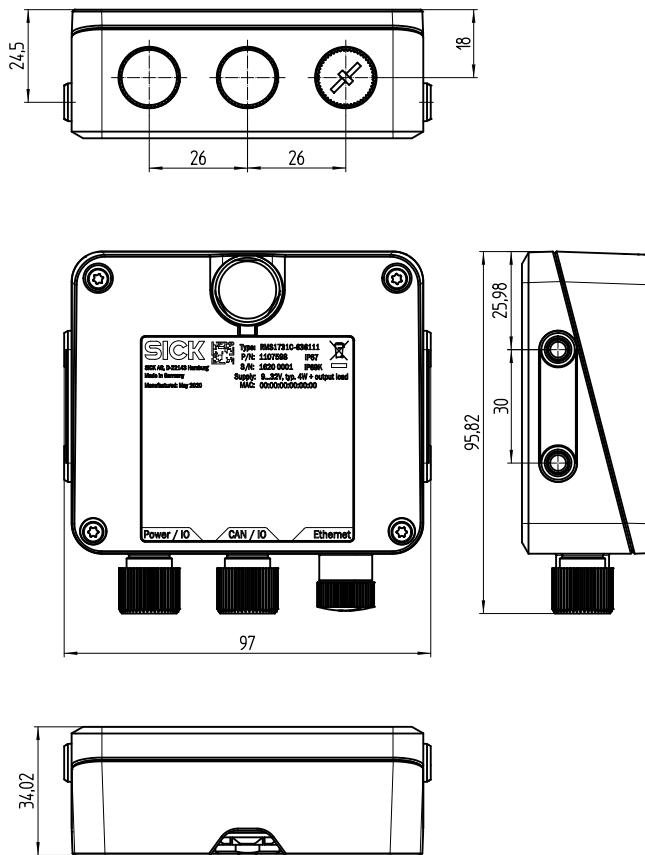
Electromagnetic compatibility (EMC)	ETSI EN 301 489-1 EN 61000-6-2 EN 61000-6-4
Radio standard	ETSI EN 305 550
Vibration resistance	EN 60068-2-6:2008-02
Shock resistance	EN 60068-2-27:2009-05
Ambient operating temperature	-40 °C ... +65 °C
Storage temperature	-40 °C ... +85 °C

Classifications

eCl@ss 5.0	27270890
eCl@ss 5.1.4	27270890
eCl@ss 6.0	27270890
eCl@ss 6.2	27270890
eCl@ss 7.0	27270890
eCl@ss 8.0	27270890
eCl@ss 8.1	27270890
eCl@ss 9.0	27270890
eCl@ss 10.0	27270807
eCl@ss 11.0	27270807

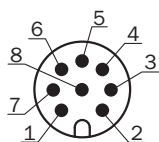
eCl@ss 12.0	27274501
ETIM 5.0	EC001825
ETIM 6.0	EC001825
ETIM 7.0	EC001825
ETIM 8.0	EC001825
UNSPSC 16.0901	39121528

Dimensional drawing (Dimensions in mm (inch))



PIN assignment

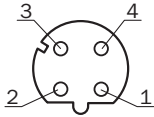
CAN



Connector M12, 8-pin, A-coded

- ① CAN_H
- ② CAN_L
- ③ In₂
- ④ GND IN1/2
- ⑤ OUT2
- ⑥ OUT3
- ⑦ GND
- ⑧ OUT4

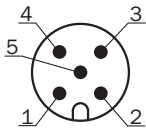
Ethernet



M12 female connector, 4-pin, D-coded

- ① TX+
- ② RX+
- ③ TX-
- ④ RX-

Power




Connector M12, 5-pin, A-coded

- ① L+
- ② In₁
- ③ GND
- ④ OUT1
- ⑤ GND IN1/2

Recommended accessories

Other models and accessories → www.sick.com/RMS1000

	Brief description	Type	Part no.
Plug connectors and cables			
	Head A: female connector, M12, 8-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m	YF2A18-050UA5XLEAX	2095653
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, shielded, 5 m	YF2A25-050UB6XLEAX	2095733
	Head A: female connector, M12, 8-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 2 m	YG2A18-020UA5XLEAX	2095779
	Head A: female connector, M12, 5-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, shielded, 5 m	YG2A25-050UB6XLEAX	2095792
	Head A: male connector, M12, 4-pin, angled, D-coded Head B: male connector, RJ45, 8-pin, straight Cable: Ethernet, PUR, halogen-free, shielded, 5 m	SSL-2J04-H05ME	6045287

	Brief description	Type	Part no.
	Head A: male connector, M12, 4-pin, straight, D-coded Head B: male connector, RJ45, 4-pin, straight Cable: Ethernet, PROFINET, PUR, halogen-free, shielded, 5 m	YM2D24-050PN1MRJA4	2106184

Recommended services

Additional services → www.sick.com/RMS1000

	Type	Part no.
Warranty extensions		
<ul style="list-style-type: none"> • Product area: Identification solutions, machine vision, Distance sensors, Detection and ranging solutions • Range of services: The services correspond to the scope of the statutory manufacturer warranty (SICK general terms of delivery). • Duration: Five-year warranty from delivery date. 	Extended warranty for a total of five years from delivery date	1680671

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com